IN THE CLAIMS:

All of the pending claims 1-6 are set forth below. The status of each claim is indicated with one of (original), (currently amended), or (previously presented). Please AMEND claims 1 and 2 in accordance with the following:

1. (currently amended) An optical communication system comprising:

a plurality of optical transmitters outputting different wavelength lights respectively;

a multiplexer multiplexing the lights from the transmitters; and

an optical gate converting a multiplexed light from the multiplexer into a time division multiplexed signal light having a second wavelength which is a different wavelength from the wavelengths of the output lights from the transmitters, wherein,

said optical gate converts said multiplexed light into said time division multiplexed signal light synchronized with optical pulses by performing gate operation between said multiplexed light and a probe light having said second wavelength, and said probe light is said optical pulse.

2. (currently amended) An optical communication system according to claim 1, wherein the ~~otpical~~ optical gate comprises a nonlinear loop mirror.

3. (original) An optical communication system according to claim 1, wherein the optical gate comprises a nonlinear device.

4. (previously presented) An optical communication system, comprising:

a plurality of optical transmitters outputting different wavelength lights respectively;

a plurality of delay circuits shifting said different wavelength lights by a predetermined time respectively;

a multiplexer wavelength multiplexing the lights from the delay circuits; and

an optical gate converting a wavelength multiplexed light from the multiplexer into a time division multiplexed signal light which has one wavelength which is a different wavelength from the wavelengths of the output lights from the transmitters.

5. (previously presented) An optical communication system according to claim 1, wherein the optical gate comprises a first optical coupler including first and second optical paths directionally coupled to each other, a nonlinear optical medium for forming a loop optical path

connecting said first and second optical paths, and a second optical coupler including a third optical path directionally coupled to said loop optical path.

6. (previously presented) A method comprising:

outputting different wavelength lights by a plurality of transmitters respectively;

shifting said different wavelength lights by a predetermined time respectively;

wavelength-multiplexing the shifted different wavelength lights; and

converting the wavelength multiplexed light into a time division multiplexed signal light having one wavelength which is a different wavelength from the wavelengths of the output lights from the transmitters.